DELAWARE STATE MEDICAL JOURNAL

Owned and Published by the Medical Society of Delaware
Issued Monthly Under the Supervision of the Publication Committee

Volume II
Number 8

AUGUST, 1930

Per Year $2.00
Per Copy 20c

DELAWARE'S POPULATION*

ARTHUR C. JOST, M. D., C. M.
DOVER, DEL.

An examination of Delaware's population figures shows quite plainly that there has been going on for some time a process which has tended to limit the number of persons in the lower age groups, while at the same time the number comprising the older age groups of the population has been somewhat unduly augmented.

This is quite obvious if there is compared a million of the population of the United States as a whole, tabulated into age groups as determined by the 1920 census, with what would be the population of the same age groups in Delaware, had the population of the State at the time of the census enumeration been exactly a million. Each age group of the Delaware population in the table given has been expanded pro rata, on the basis actually found. It need not be said that the population of the State was, however, 223,003, not 1,000,000.

Age Group	*Million of United States Population 1920 Census*	*Million of Delaware Population 1920 Census*	*Difference*	
0- 4	109,477	103,159	Minus	6,318
5- 9	107,838	95,130	"	12,708
10-14	100,678	90,944	"	9,734
15-19	89,208	83,556	"	5,652
20-24	87,756	89,780	Plus	2,024
25-34	162,302	163,258	"	956
35-44	133,578	136,774	"	3,196
45-54	99,310	108,214	"	8,904
55-64	61,785	73,390	"	11,605
65-74	32,762	39,436	"	6,674
75 and over	15,306	16,359	"	1,053
Totals	1,000,000	1,000,000		

This quite plainly indicates that the State for some time previous to the taking of the census, had been an exporting State, one which had, for many years, experienced the drain of young adult removal. The result is quite plainly seen in the lessened number of persons in the younger age groups as determined by the census. Very evidently the growth of the State's population had suffered on account of the reduction of births which had taken place during a period of years preceding the census. It had apparently been worse about the year 1910 than it was at the time of the 1920 census, since all age groups, that of age group 5-9 was the most deficient. About the time of the taking of the 1920 census, the condition seemed to have righted itself somewhat, if only for a temporary period, as the population of the State contained about the same proportion of persons aged from 20 to 35 as did the Union as a whole.

Very noticeable, however, is the preponderance of persons of advanced age. From 45 on, there were over ten per cent more persons per million resident in Delaware than there were in the United States as a whole. (237,399 to 209,163—a difference of 28,236).

In that period which has elapsed, between the taking of the census of 1920 and that of 1930, the exporting movement seems to have been renewed. There were in the State, in 1920, 223,003 persons. Since that time there are records of the births of over 48,000 more. There are records of somewhat over 31,000 deaths. Had the natural increase (the difference between the births and the deaths) been retained, the population of the State would now be over 240,000. We are quite safe in assuming that at least five per cent of births were not reported. Probably almost all the deaths were. It thus appears that about 6,500 persons have left the State, in addition to those whose places have been taken by immigrants, or persons who have moved thither from other states. This statement is based upon the report that the census of the State, according to the 1930 census, is 236,858.

This is a condition which must of necessity affect in a number of ways the records and the vital statistics of the State. Moreover, to quite an extent, it explains or gives a clue to the understanding of those statistics, and indicates where special effort should be directed, if an attempt to improve them is being made.

EFFECT ON DEATH RATES

The curve of death rates by age groups is a "U" shaped curve, which from an altitude of about 20 per thousand for the first half decade (0-4) drops sharply to about 3 for the half

* From the Delaware State Board of Health.

decade (5-9) and the full decade (10-19). Thereafter it rises. The rate of mortality affecting the group aged 55-59 is approximately the same as that to which the members of the first half decade are subject. Beyond that age a still more rapid rise is observed to that age beyond which life rarely extends.

With exactly the same strength of the currents of mortality affecting the various age groups of two communities, it is apparent that the death rates (the crude death rates) of those communities may differ widely, if the persons in the communities differ in their age groupings. If in one there are large numbers of the population who belong to an age group showing low mortality, the crude death rate of that community will be low. If there is an adverse grouping, the higher age groups being over-populated, the crude death rate will be high. The State of Delaware, showing as it does an over-population amounting to about ten per cent in its high age groups, cannot expect, therefore, to show a crude death rate as low as does the Union as a whole.

The process of standardizing the death rate seeks to provide a means of permitting fairer comparisons. There are several methods of so standardizing a rate, either by determining the population of a group which is to be considered as the standard and measuring against it the population of the country being examined, or of using the death rates by age groups of this country against the population of the standard. If the process is followed in respect of Delaware, it can be proved that, against the standard recently being used—the population of England and Wales as determined by the census of 1901—(though the selection of any standard is permissible) the population of the State is prejudiced by adverse age grouping to an extent which represents about one-tenth of its crude rate. Standardizing the Delaware rate reduces it approximately one-tenth, and the reason for the reduction is over-representation in the higher age groups going to make up its population.

EFFECT ON BIRTH RATE

The birth rate of any community depends very largely on the number of females in the community who are aged between 15 and 45. Of that group of females, however, all do not equally take part in the function of population increase. Two-thirds of the births are to mothers aged between 15 and 30. There are other factors involved which determine to a great extent the birth rate of any community, but it is quite obvious that a basic fact in the consideration of the question is the number of females in the community among whom children are usually borne.

There is in the State of Delaware a relative decrease in the numbers of these, as compared with those going to make up the Union. This is in itself a handicap to population increase, the commencement of a vicious circle, the tendency of which when entered upon is to hamper the State in population growth.

In any consideration of this aspect of the subject, comment on the very remarkable reduction in the birth rates reported by all countries during the past few years is most natural. Delaware shows this reduction as well as other states. The contrast between the death rates and the birth rates is quite striking. Over a period of ten or more years, the trend of the death rates has been approximately stationary, and, barring unusual epidemics, it is to be expected that it will continue to be so, until such time as a rise occurs, due to a still greater over-population of the higher age groups. This must eventually occur. On the other hand, the trend of the birth rates during the same period shows a most marked and unmistakable drop, the amount of the drop in the trend being about .8 per year. If the trend continues to fall at the same speed it will be but a few years until the birth and death rates are at the same figure. Less than five points now separate them, and this difference will disappear in less than ten years, if the record of the past ten years still obtains. A stationary population will be the result. Increase of population can then take place only if immigration is resorted to. In the presence of but small representation in the higher age groups, a stationary population may for a time be maintained, but with the higher age groups already over represented, and the process still going on, difficulty will surely be met with in maintaining the balance.

DELAWARE BIRTH AND DEATH RATES

Year	*Birth Rates Per 1,000 of Population*	*Death Rates Per 1,000 of Population*
1920	25.3	14.5
1921	23.6	13.2
1922	22.4	13.2
1923	21.5	14.2
1924	22.	13.2
1925	21.6	13.5
1926	19.7	14.9
1927	19.4	12.9
1928	18.6	13.7
1929	18.1	13.3

AVERAGE AND MEDIAN AGES AT DEATH

The average age at death is determined by dividing the sum of the number of years which have been lived by the decedents of any one year by the number of those decedents. This has very materially altered during recent years, the alteration being of the nature of a strikingly regular advance in the figure. During the year 1918, in which year a large number of deaths occurred from influenza during the epidemic which had as one of its distinguishing features the losses it occasioned among young adults, the advance was temporarily halted, but was immediately thereafter resumed. Factors contributing to the regular advance are the reduction in the losses of infants and the diminished number of deaths due to the communicable diseases, including tuberculosis, the bulk of the losses from which have been taking place in early adult life. The increase in the average age at death indicates also a tendency for the average age of the living to advance, though the average age at death of a population and the average age of the population are widely differing figures. For example, the average age of Delaware's population in 1920 was 29.84 years. The median age of the population of the State was then about 26.2 years, which was about one full year greater than was the median age of the population of the Union as a whole. The same year, the average age of the decedents of the State was over 40 years.

The median age at death is the age on either side of which half the population die. This also has altered quite markedly of recent years. The State seems to be quite rapidly reaching the point where as many of its population die over the age of 60 as die not yet having attained that age. As with the average age at death, the median age at death is closely connected with the increasing average age of the Delaware population. The shift which has taken place in this respect can be well seen if a comparison is made with the expansion of the population of the State to a million made from both the census of 1910 and 1920.

Age Group	*Delaware Million 1910 Census*	*Delaware Million 1920 Census*
0- 4	99,262	103,159
5- 9	95,061	95,130
10-14	95,604	90,944
15-19	96,361	83,556
20-24	95,351	89,780
25-34	160,810	163,258
35-44	133,466	136,774
45-54	105,872	108,214
55-64	66,405	73,390
65-74	37,326	39,436
75 and over	14,482	16,359
Totals	1,000,000	1,000,000

This table shows very plainly two changes which are of very great importance, the shrinkage of the population in so far as the age groups from ages 15 to 24 are concerned, and as well, the increasing numbers in every age group over 45.

The changes which have taken place with respect to the average age at death and the median age at death over a period of years are here given.

Year	*Average Age at Death*	*Median Age at Death*
1921	44.44	50.6
1922	45.91	53.0
1923	44.85	51.6
1924	46.77	53.1
1925	47.66	54.2
1926	48.64	55.2
1927	50.28	57.
1928	50.66	55.8

As additional evidence of the change which has taken place, it is only necessary to say that in the year 1904 the average age at death was 37.53 and the median age 36.2.

The effect of these changes on the incidence of the degenerative diseases of later life must be obvious. There will be found to be a very definite correlation between the rate of cancer increase and the increase in the average and median ages at death. A low cancer death rate is to be expected in any community where the average or median ages of the decedents approximate 45, which is the age under which cancer incidence is not a marked danger. The cancer death rate will rise quite definitely as these other figures increase. Moreover, it must be appreciated that there is a connection between the increases in these figures which are a feature of the vital statistics of this State and the rises in the trends of deaths brought about by diseases of the heart, apoplexy and chronic Bright's disease.

RACE

Any consideration of the population of the State should take into account the quite considerable proportion of colored residents, a number sufficient to have a very appreciable effect on the vital statistics of the State. Present to the number of about four out of each twenty-three of the population in 1910, the proportion had dropped to about four in each twenty-five in 1920. The decrease was actual as well as relative, and it is not to be wondered at, if the 1930 census—though the figures are not yet known—shows again a diminution both in percentage and in count. This is to be surmised, since it is known that during most of the individual years between 1920 and 1930 the number of deaths of the colored exceeded the number of reported births. There has not been the tendency for the birth

rate to decline as has been a feature of the white race, but throughout the period the death rate has been very appreciably higher.

The infant mortality of the colored exceeds by one and a half to three times that of the whites. The tuberculosis rate is now about three times the white rate. In connection with this, one feature deserves special comment. The rate for the whites appears to have stabilized itself for several years at about 60 or 65 per hundred thousand, while during the same time the rate for the colored has dropped sharply. So much has this been the case that the improvement shown in the rate of the State as a whole is in fact due only to improvement in respect to the colored of the population. In respect of other infections, the conditions vary widely. The rate of cancer incidence is very low, about 75 per cent the white rate, and it has shown little tendency to increase. Here, the exact reverse of the conditions seen in respect of tuberculosis has been experienced, in that the rise in the cancer rate which has been observed for the State as a whole is due only to the increase which has occurred among the white residents.

CONCLUSIONS

In general, the indications are that, in view of the somewhat unusual composition of the population of the State, there is need for efforts directed along certain particular lines.

1. In view of the somewhat depleted first half decade, especial care should be taken towards safeguarding the lives of infants and children of tender age. The reduction of the infant mortality of the State will tend in a measure to offset the deficiency, if the process can be maintained throughout a period of years. At least theoretically, a rate of infant mortality half of that lately experienced might be obtained and ought to be the goal of endeavor. There is very adequate proof that a reduction of mortality during the first year is carried over to lessen the mortality of the years immediately following. Moreover, some of the infectious diseases claim as their victims, by preference, children of the same half decade. Diphtheria is very fatal to children of that group, as also is whooping cough. Meningitis and measles are special dangers. The continuation of the efforts being made to limit these diseases will have some effect towards restoring a more satisfactory balance.

2. Of all the infections, tuberculosis is the especial menace of the young adult. It causes about one-fifth of all the deaths of persons aged 10 to 19, and from a quarter to a third of all deaths of persons of the 20 to 29 age group. If by any means at our disposal we can remove entirely or lessen materially these losses, we shall have gone far towards safeguarding a group already depleted in numbers in this State. If it is not permitted us to govern the economic conditions which are the reasons for the exportation of these from the State, we can at least do something towards making the State safer for those who remain. This is our bounden duty, a duty from which we cannot escape.

3. Without the possibility of a doubt, there is due in this State an increase in the number of deaths from the degenerative diseases, including cancer. The rate of this is rising and must rise. At the same time, much can be done to keep that rise within bounds. Lives are being lost through delay, through failure to apply for or to receive treatment when treatment can be of avail. The public must be taught that early treatment, along scientific lines, offers the best, almost the only, prospect of relief. There are incontrovertible proofs of cures in so many cases, provided treatment has been instituted sufficiently early, that an attitude of hopelessness or resignation cannot be justified. But not cancer alone must be borne in mind. In respect to many of the degenerative diseases, the best treatment is the exercise of that prevention which makes infection in early life impossible. The chronic heart disease, the damaged kidneys, and the rigid arteries of the later decades are often the direct result of infections contracted many years earlier.

Evaluation of Therapeutic Results in Essential Hypertension

In a series of forty unselected hypertension patients, seriously and enthusiastically treated by David Ayman, Boston (*Journal A. M. A.*, July 26, 1930), by the daily administration of a few drops of dilute hydrochloric acid, the symptoms were definitely improved in thirty-three, or 82 per cent. Ayman finds that the symptoms associated with uncomplicated essential hypertension may frequently be relieved by the suggestion inherent in any seriously and enthusiastically prescribed drug or method of therapy. This is the probable explanation of many successes reported in the past.

SUGGESTIONS FROM A LABORATORY DIRECTOR*

R. D. HERDMAN, B. S.
DOVER, DEL.

The facilities of the State Board of Health Laboratory are open to all of the physicians and people of the State, but, in order to give the greatest service, it must act almost entirely through the medical profession. Laboratory tests are often the greatest value to the patient, but such tests must always be interpreted in the light of the physician's clinical findings.

The Laboratory of the State Board of Health is equipped to give physicians free laboratory help in the diagnosis of diphtheria, Vincent's angina, tuberculosis, typhoid fever, paratyphoid fever, typhus fever, undulant fever, tularemia, syphilis, gonorrhea, rabies, malaria, meningitis, etc. Urine, water, mother's milk, and cow's milk are also examined in the laboratory.

TYPHOID AND PARATYPHOID FEVER

During the first week of the patient's illness, the best laboratory test is a culture of the patient's blood for typhoid and paratyphoid bacilli. When the bacilli are found, the diagnosis is certain. After the first week, the bacilli may be absent from the peripheral circulation. The Keidel tube may be used for blood culture specimens, but somewhat better results will be obtained by drawing the blood into tubes of prepared culture media. After the first week of the patient's illness, the best laboratory test is the agglutination test. As the blood from patients suffering with paratyphoid fever, undulant fever, colon infection, and other febrile diseases occasionally give weak reactions with typhoid bacilli, sufficient blood should be submitted to make accurate dilutions for differential examinations. The use of the Keidel tube is recommended.

A positive reaction in a dilution of 1:80 or higher, if accompanied by clinical evidence, is practically diagnostic of typhoid. Twenty per cent of all typhoid cases give positive reactions by the end of the first week; about 70 per cent by the end of the second week; and more than 90 per cent some time during the disease. A few do not give positive reactions at any time. Usually the reaction may be obtained for some time after the fever subsides.

Besides the Widal test and blood culture examinations, the laboratory examines samples of feces and urine to determine whether a patient has recovered from the disease or still harbors the typhoid bacilli and thus be a carrier.

TYPHUS AND UNDULANT FEVER

This laboratory is prepared to make the Weil-Felix test for typhus fever and the agglutination test for undulant fever. Physicians desiring these tests should send sufficient blood to make accurate dilutions. The Keidel tube is recommended. These tests should be made on every case of continued fever when a definite clinical entity is not established.

SYPHILIS

On Thursday of each week, blood and spinal fluid are tested for syphilis. Specimens should reach the laboratory not later than Wednesday afternoon. The technic employed in this laboratory is the new Kolmer quantitative complement fixation test and the Kahn precipitation test.

About 5 c. c. of blood or 3 c. c. of spinal fluid should be sent for this test. Special care should be taken to guard against the presence of any preservative or any foreign substance. The smallest trace of water is sufficient to haemolyze the red cells and ruin the specimen. When specimens are taken properly, they may be sent from any part of the State and reach the laboratory in good condition.

The condition of the patient at the time of taking the blood must be considered. If the patient is being treated, all specific treatment should be suspended for at least two weeks before collecting blood for a check-up test. The blood may react negatively during active anti-syphilitic treatment and at a later period a true positive reaction may be secured.

In syphilis, a single negative Wassermann reaction or precipitation test is not sufficient or definite evidence that a cure has been effected, for the disease may recur after treatment is discontinued, at least to the extent that the Wassermann reaction and Kahn precipitation test reappears, followed by clinical manifestations. It is necessary, therefore, that successive examinations be made during a period of at least two years, and off and on during the remainder of life.

In cases of latent syphilis that react negatively, and where lues is known to have been pres-

* From the Delaware State Board of Health.

ent or is strongly suspected, the administration of a specific spirillicidal agent (as .3 to .4 gram of sulpharsphenamine or neoarsphenamine) followed by a Wassermann test about three days later, may show a positive reaction indicating latent syphilis requiring further treatment.

Negative Wassermann reactions and precipitation tests do not exclude the possibility of syphilis. This is especially true during the primary and latent stages (both acquired and congenital infections) of disease when "reagin" has not occurred to a sufficient degree to permit its detection in the blood and spinal fluid by complement fixation test.

It is now well established that in some cases of syphilis, and especially those with involvement of the brain and spinal cord, the Wassermann and Kahn precipitation test with the blood serum may yield a negative reaction, while the spinal fluid reacts positive. In many cases of treated syphilis, the serum reaction may be negative when the spinal fluid reacts positive. In primary syphilis, the highest percentage of positive reactions are obtained four or five weeks after the primary sore first appears.

For the Wassermann and Kahn precipitation tests, blood should not be taken immediately after a meal (it is likely to be chylous and serum anticomplementary) nor should it be taken until about three days after an acute alcoholic debauch. Blood for the Wassermann and Kahn precipitation tests should not be taken during or immediately after anaesthesia by chloroform.

GROWTH OF THE LABORATORY

Since the Laboratory has been in Dover, the number of specimens received and examined has increased markedly. Here are briefly the figures showing the growth of the Laboratory during the past five years.

In the year commencing July 1, 1925, extending to June 30, 1926, the total number of specimens examined was 6,288. The following year saw an increase in the figures to 6,995—an increase of 10% over the former year. During the next year, the percentage of increase was immensely higher. The number of specimens nearly doubled that of the former year, and totaled 11,453. Again the next year an increase was registered. The total this year was 13,952. This was for the period ending June 30, 1929. The percentage of increase of work over the former year was more than 20%. In the fiscal year ending June 30, 1930, the figures of the preceding year were again largely exceeded. The total number of specimens entered for examination was 16,138.

During the five years, the volume of work done in the Laboratory has nearly tripled. The increase in work done represents the difference between 6,288 and 16,138 specimens.

There are about 180 physicians practicing in the State. Of this number, 145 sent specimens to the Laboratory for examination during the year recently ended. In a period extending over several months of the year first referred to in this article (1925-1926), only 95 physicians were using the Laboratory facilities. It would, therefore, appear that the Laboratory is being used by a higher percentage of the physicians and to nearly three-fold the extent that it was used five years ago.

Ascaris Lumbricoides

G. F. Otto, Baltimore (*Journal A. M. A.*, July 19, 1930), reports on a group of 157 persons of all ages who were examined in the spring and early summer of 1928 and those harboring ascarids were treated with oil of chenopodium. Re-examination of 98 of these persons in the late summer showed that the treatment had reduced the egg count for the group to one-third of its original figure. A few of those whose feces were negative at the time of the first examination and hence were not treated were passing worm eggs at the time of the second examination. Re-examination of the 157 persons the following spring revealed that the worm burden as judged by the egg count had returned to its pre-treatment level. Only a third of those yielding negative specimens on either the first or the last examination were free from worms throughout. Spontaneous passage of worms is not uncommon and shows that, while the egg count for the population may reach a certain level, the individual infestations must vary tremendously. A seasonal variation is suggested by comparing these data with the tropical incidence, which supports the author's view that there is an almost complete turnover in the worm burden each year. This suggests that, while treatment without sanitation is non-effective, the universal and exclusive use of the sanitary privy in any community would rapidly reduce the worm burden without therapeusis.

ENDEMIC TYPHUS FEVER (BRILL'S DISEASE)*

Report of a Case in Sussex County

E. F. SMITH, M. D.
GEORGETOWN, DEL.

Epidemic typhus fever was recognized as a separate entity as early as the fifteenth century. It was then designated as "tabardillo," from the spots appearing on the skin. This term is still used as one of the Spanish names for typhus fever. The disease was very prevalent and very fatal in Europe at this time. Vaughn's Epidemiology and Public Health says: "In four years, 1550 to 1554, it is said that more than one million people in Tuscany were destroyed by typhus."

The disease affected principally the very poor and those who lived in unsanitary surroundings as the following quotation from Vaughn proves: "It is interesting to know that during the eighteenth century English physicians for the most part were not much concerned with the poor and many of them saw little of typhus, while colleagues, busy with the poor, saw much of it." A Doctor Moss, writing of the disease in Liverpool, stated that typhus was rare, while in the same city a Dr. Currie was seeing 3,000 cases a year. In 1790 Liverpool was the second city in England with a population of 56,000. According to Curry 7,000 of the people of Liverpool lived in cellars and 9,000 more in back houses with small courts and with narrow passages into the streets. In ten years (1787 to 1796) 31,343 cases of typhus were registered, an average of 3,134 per year. The second half of the eighteenth century saw the great manufacturing development of England, due to the employment of machinery. During this time the poor were exploited by the manufacturer. The houses occupied by the operatives are said by Ferrier to have been dirty, without ventilation, and the beds almost touching. As soon as one poor creature dies or is driven out of his cell, he is replaced by another, generally from the same country, who finds in his turn the consequence of breathing infected air.

Practically the only voices heard in behalf of the poor were those of the medical men, and in Manchester, Ferrier pleaded for them in strong language, from which the following quotation is made: "I have seen patients in agonies of despair on finding themselves overwhelmed with filth and abandoned by every one who could do them any service— The situation of the poor at present is extremely dangerous, and often destructive to the middle and higher ranks of society. The poor are indeed the first sufferers, but the mischief does not always rest with them. By secret avenues it reaches the most opulent and severely revenges their neglect or insensibility to the wretchedness surrounding them." It was a fact that typhus occasionally found its way into the midst of the rich, and, when it did, killed so many and so quickly that they were compelled to recognize that misfortunes of the poor were of concern to themselves. Finally in a half-hearted way, urged by physicians, growling about the wastefulness and improvidence of the laboring classes and driven by the occasional deadly outbreaks in their ranks, the ruling classes began to provide special hospitals for the isolation and care of cases of typhus. The London Fever Hospital was established in 1802.

There has never been a serious epidemic of typhus fever in the United States, yet in the twenty year period, 1900 to 1919, there were 109 deaths reported in the registration area of the United States, and thirty-five of these occurred in 1916. Of these 26 were in Texas, 4 in Colorado, 2 in Missouri, and one each in California, New York, and North Carolina. Most of the deaths were in newly arrived immigrants. Dr. Kenneth F. Maxcy of the United Public Health Service says: "Up to 1910, then, the United States was generally considered to be free from typhus fever except for the occasional case imported from Europe or Mexico. In that year Dr. Nathan Brill called attention to a disease occurring endemically in New York City which was clinically indistinguishable from typhus fever, but presented certain epidemiological differences. The work of Anderson and Goldberger in the following two years indicated that the virus of "Brill's disease" and that of "tabardillo" were identical, and similar in respects to published accounts of virus of European and African typhus fever.

Following these publications a considerable interest was aroused. Reports of cases similar to those described by Brill were made from many of the eastern cities. Since 1915 there has been a growing appreciation of the fact that cases resembling typhus fever and corresponding to Brill's disease clinically were occurring on the soil of the United States under circumstances where the chances of recent importation of the virus seemed rather remote.

* From the Delaware State Board of Health.

Not until 1909 was it proven definitely by Nicole, Compte, and Council that *epidemic* typhus was transmitted by the body louse. Anderson and Goldberger reported in 1912 that they had been able to transmit it by the head louse. It seems to be pretty definitely proven that *endemic* typhus is *not* a louse-borne disease, but the means by which it is spread has not been discovered. Ticks, bedbugs, etc., are suspected but the case against them has not been proven.

Endemic typhus appears not to be contagious; therefore, it is a small public health hazard. The disease is characterized by sudden onset usually with chills, rather rapid rise of temperature, and headache. The conjunctivae are injected, and the face flushed. About the third or fourth day the characteristic eruption appears, first on the abdomen and chest, rapidly spreading to the entire body. The rash is at first macular and later petechial in character. It persists throughout the course of the disease. The temperature frequently reaches 105° or 106° with morning remissions until about the fourteenth day of the disease, when it declines by crisis or rapid lysis.

The Weil-Felix agglutination test, which the State Board of Health Laboratory is prepared to make when a sufficient quantity of blood is sent (the use of a Keidel tube is recommended), practically clinches the diagnosis.

CASE REPORT

On July 1, Mr. C, age 38, white, and married, visited the offices of Drs. A. C. & M. C. Smoot, suffering from pain in the epigastrium, constipation, pains in the joints of arms and legs, and fever. Mr. C is a laborer whose work consists in driving teams in woods. He was given symptomatic treatment, and went home. On July 5 he called Dr. Smoot, who found him complaining very much as he had on the visit to the office. On examination he had some bronchitis, temperature 103½°, spleen not palpable. He complained of severe backache, pain in legs, and a slight eruption was noticed on the abdomen which appeared to be under the skin, rather than on the surface. By July 6 the eruption more marked on abdomen and some eruption on the chest. Pain in epigastrium, abdomen tense, spleen not palpable. Pain in legs.

On July 8 the eruption covered the entire body except scalp, soles, and palms, more marked on extensor surfaces. The eruption was then macular in character, discreet, and red. Conjunctivae injected and face flushed. From this time on the eruption was progressive, becoming thicker until about July 16. Some of the macules by this time had become petechial in character. After this time the eruption began to fade.

About July 20 some of the macules were noticed to be capped by small pustules, pinhead in size. These lasted for about a week, then the eruption became slightly scaly. At this present time (July 31), there is abundant eruption, brownish-red in color, slightly scaly, and slowly fading.

Since the first few days the man's appetite has been good. He has no delirium, but for the first two weeks he was decidedly a sick man.

The laboratory findings were as follows: negative for typhoid, paratyphoid A and B, and undulant fever. Wassermann, Weil-Felix for typhus positive in dilution 1:20, 1:40, 1:80, and weakly positive in 1:160.

This patient was treated for a week with protiodid of mercury and iodides, and given one dose of neo-arsphenamin without any effect whatever on the eruption.

On July 25 Dr. Rumich of the United Public Health Service saw the case with us. He said that while the case was atypical, our diagnosis was correct, in his opinion. The atypical features of this case were: absence of headache, progressive eruption for two weeks, small pustules on part of the eruption, and the fact that not all the eruption became petechial in character. Nosebleed is common in endemic typhus, and while this patient had no nose-bleed, when the lobe of the ear was punctured, it was difficult to stop the flow of blood, showing increased coagulation-time.

To quote Dr. H. Hamilton, Health Officer, Wilmington, N. C.: "It cannot be denied that we have occasional cases of Brill's disease. This fact gives every physician an opportunity to see a patient and the privilege to contribute to medical knowledge if he is fortunate enough to determine the mode of transfer of infectious material. The discovery of this fact might do much to unlock the remaining secrets of endemic typhus."

If this paper helps some other physician to avoid some of the difficulties in the diagnosis of his first case of endemic typhus, which we had with ours, it will have served the purpose for which it was written. I trust that due allowance will be made by readers of this paper for the fact, that, this patient was not hospitalized, had no skilled nursing, and lives ten miles in the country.

SOME PREVENTABLE CAUSES OF DEATH AMONG INFANTS AND CHILDREN*

C. A. SARGENT, M. D.
DOVER, DEL.

Eleven per cent of all deaths in Delaware during 1929 were among infants under one year of age. Two-thirds of these infant deaths were due to four groups of causes more or less preventable.

Premature birth was the predisposing cause of seventy-seven deaths, the largest number of infant deaths due to any particular cause. Pneumonia was next in order as a causative agent with a total of sixty-seven deaths. Diarrheal diseases were responsible for sixty-two deaths and the so-called epidemic diseases caused twenty-seven infant deaths.

An analysis of the infant deaths in 1929 due to epidemic diseases shows that whooping cough was the cause of more infant deaths than any other epidemic disease and infant deaths due to this cause constituted forty-four per cent of the total for epidemic diseases, and three per cent of all infant deaths. For the years from 1916 to 1929 inclusive fifty-nine per cent of the whooping cough deaths occurred under one year of age and ninety-four per cent occurred during the first three years of life. No death from whooping cough occurred during this period in any age group over nineteen years. During this same period, whooping cough was only exceeded as a cause of death under one year of age among the group of epidemic diseases four times. Three times by influenza and once by measles. In 1918 and 1919 the number of deaths from influenza was unusually high and in 1928 this cause exceeded whooping cough by two deaths. In 1922 there were no deaths under one year of age due to whooping cough while there were two caused by measles.

Since ninety-four per cent of all whooping cough deaths occur during the first three years of life, an effort is to be made to protect the pre-school child from the disease. Early diagnosis of the disease in the school and at home by the cough plate method may be attempted under favorable conditions. The prophylactic serum is not administered by the Board of Health; however, excellent results have been obtained in some cases.

Seventy-nine per cent of all measles deaths from 1916 to 1929 inclusive occurred during the first three years of life. With few exceptions, measles epidemics have occurred in cycles of three years in this State. If the law of averages is considered we were justified in expecting an epidemic of measles in 1929. This, however, did not materialize. An epidemic is predicted for this year and plans are being made to protect the children under three years of age. Since a physician is not in attendance on all cases of measles; since many cases are not reported, and the disease is so highly contagious, it is very difficult to protect the pre-school child by isolation of the case. When a history of exposure can be obtained sufficiently early, whole blood inoculations are of much value in bringing about an attenuated form of measles.† By this method the child has the disease in a mild form and immunity is established without the danger of complications.

Scarlet Fever has caused but thirty deaths from the six year period since 1923 whereas for the six years prior to that time eighty-five deaths were due to this disease. For some unexplained reason the disease has been mild yet there is no assurance that this condition will continue to exist.

Diphtheria has not been a serious factor in the cause of infant deaths. The deaths from this cause since 1916 for the first three years of life have been the same as for the age group from four to twenty years. In the age group from five to nine years has occurred the largest number of diphtheria deaths, nearly one-third of the total number.

More than 42,000 children have been given the protective treatments since 1926. For the four years since that time, there have been fifty-one deaths due to diphtheria and for the four years prior to that time there were ninety-nine deaths. In the age group from five to nine years, the number of deaths has been reduced from thirty-one to eighteen during this same time. During 1926 and 1927 toxin-antitoxin (horse serum) was used; in 1928 toxin-antitoxin (goat and sheep serum) was used; in 1929 and 1930 toxoid was used, more than 7,500 children receiving the inoculations. The toxoid seems more practical to use because of the absence of serum and subsequent possibility of anaphylaxis and because there are only two inoculations instead of three.

* From the Delaware State Board of Health.

† Measles prophylaxis: Drs. Barenberg, L. H., Lewis, J. M., and Messer, W. H., J. A. M. A. July 5, 1930.

The value of immunization against diphtheria has been demonstrated and it is the desire of the Board of Health that the practicing physicians take a more active interest in this work and eventually do all of the immunizations.

Influenza deaths have been increasing for the past two years, especially among infants under one year of age.

There has been but little change in the number of deaths due to dysentery since 1917. The number has been small. At no time have there been over five deaths in any particular year due to this cause.

The State Board of Health will be pleased to be of assistance to the physicians whenever possible. Physicians are requested to report all cases of contagious diseases promptly so that the necessary measures of protection for the susceptible groups may be taken.

Psittacosis

Following the appearance of cases in the United States investigation of the disease was started by the Hygienic Laboratory, Washington, D. C. The seven cases reported by Edwin Peterson, O. B. Spalding and Otis Wildman, Washington, D. C. (*Journal A. M. A.*, July 19, 1930), represent laboratory infections occurring at this institution during the investigation. It was found that after an incubation period of from eight to ten days the disease begins to manifest itself. The first symptom is usually a chill or sense of chilliness, soon followed by a disinct rise in temperature. Headache may come on during the first day and persist for several days. Perspiration is the rule during the first week of illness. Appetite is commonly lost. The tongue becomes coated early; the center of the tongue may be chalky white and the edges red; the coat sometimes is brownish. Abdominal distention is common, often associated with constipation. The severity of the disease is definitely associated with the degree of lung involvement, which apparently is the determining factor in the development of the toxemia. In these mild cases respiration seldom goes over 24 a minute, and the pulse is definitely below 100, often between 80 and 90 in spite of the fact that the temperature may rise to 103.5 F. In the more severe cases a whole lobe or, indeed, two or more lobes may become involved. In these cases the picture may resemble that of lobar pneumonia with rather rapid breathing, cough and expectoration of rusty sputum. Our cases 1 and 4 would come in this group. Other cases may resemble typhoid. Headache and abdominal distention are important symptoms in the severe cases. Respiration is a pronounced feature throughout the disease. The spleen could not be palpated in any of the cases. The liver descended from one to two finger-breadths below the costal margin. Relapses do occur. A complete roentgenologic study was made of all the cases in this series. Plates were taken daily, and the progress of the specific creeping pneumonia was carefully noted. The laboratory observations were consistent in all cases with regard to both positive and negative results. An absence of leukocytosis was a feature in all cases. This was associated with a distinct shift to the left of the neutrophils. This shift reached its maximum during the height of the disease and was accompanied by a distinct fall in the number of lymphocytes and absence of eosinophils. With the occurrence of lysis and general improvement, a normal distribution rapidly established itself. In all cases except one an albuminuria was present. Repeated blood cultures were negative in all cases. Cultures of feces and urine have failed to show any pathogenic organisms. The authors feel inclined to agree with those who believe that *Bacillus psittacosis* plays no part in the etiology of parrot fever. Treatment employed has been largely symptomatic coupled with alkalinization and forcing of fluids, including orange juice and dextrose. Various enemas were used for abdominal distention. In addition, the last six patients received various amounts of immune serum. Of the seven patients treated the one who did not receive serum died and the six who received serum recovered. The clinical picture, while characteristic enough, especially when the results of roentgenologic observations are available, is not so strikingly different from commoner conditions as to do more than suggest to the clinician that he is dealing with an unusual disease. No secondary cases developed from contact with patients either at home or in the hospital. This lack of infectiveness of the person sick of psittacosis is in sharp contrast to the extraordinarily high infectiousness for man of infected birds.

EDITORIAL

DELAWARE STATE MEDICAL JOURNAL

Owned and published by the Medical Society of Delaware. Issued about the twentieth of each month under the supervision of the Publication Committee.

W. EDWIN BIRD, M. D. ..... EDITOR
DuPont Building, Wilmington, Del.

W. OSCAR LAMOTTE, M. D. ..... Associate Editor
Medical Arts Building, Wilmington, Del.

M. A. TARUMIANZ, M. D. ..... Associate Editor & Bus. Mgr.
DuPont Building, Wilmington, Del.
Telephone, Wilmington, 4368

Articles sent this Journal for publication and all those read at the annual meetings of the State Society are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in the Journal, the manuscript will be returned to the writer.

Manuscript should be sent in typewritten, double spaced, wide margin, one side only. Manuscript will not be returned unless return postage is forwarded.

The right is reserved to reject material submitted for either editorial or advertising columns. The Publication Committee does not hold itself responsible for views expressed either in editorials or other articles when signed by the author.

Reprints of original articles will be supplied at actual cost, provided requests for them is attached to manuscripts or made in sufficient time before publication.

All correspondence regarding editorial matters, articles, book reviews, etc., should be addressed to the Editor. All correspondence regarding advertisements, rates, etc., should be addressed to the Business Manager.

Local news of possible interest to the medical profession, notes on removals, changes in address, births, deaths and weddings will be gratefully received.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association.

It is suggested that wherever possible members of the State Society should patronize our advertisers in preference to others as a matter of fair reciprocity.

Subscription price: $2.00 per annum in advance. Single copies, 20 cents. Foreign countries: $2.50 per annum.

Vol. II AUGUST, 1930 No. 8

"ON EXPERIENCE"

"I tell you this tale, which is strictly true
Simply by way of convincing you,
How very little, since things were made,
Matters have altered in the healer's trade."

So Kipling might have written, but did not. Possibly his course of reading, about the time he penned the original ditty, had not included Montaigne's essay "On Experience." Those who are acquainted with it will remember its first lines. "There is no desire more natural than that of knowledge. We attempt all means that may bring us into it. When reason fails us, we employ experience."

With this as his text, and justified to us by our knowledge that the medicine of his day was to a very great degree an empirical medicine, he proceeds, in the discursive way which is the delight of his admirers, to spread before them a melange of shrewd comment, wide learning, and appreciative experience with or touching almost every conceivable topic which occurred to his nimble brain. It is an essay, however, which approaches more nearly to an essay on medical matters and on health than any of the numerous ones he wrote. Perhaps his experience with the healers of the day—the physitions, as Florio translates the word—had been somewhat unfortunate. He, like another of whom we read, may have "suffered many things of many physicians," in his recurring illnesses or his protracted convalescences from wounds and injuries during the military life which had been his, before his voluntary withdrawal to his library of his ancestral chateau. But his comment was not bitter, though that it was shrewd and keen anyone can witness. "And in our dayes, such as make profession of these Arts amongst us doe lesse then all others shew their effects. The most may be said of them is, that they sell medicable drugs; but that they are physitians no man can truly say it." Is that not a modern canvas, though limned nearly three hundred and fifty years ago?

And withal there is anecdote and story, the cullings of a reading which seems to have included every classical writer, personal observations indicative of an acute intelligence and a well stored memory, and a naive lack of reticence concerning himself and his varied experience which surpasses Pepys in his most confessional mood.

There is more. There are glimpses of an appreciation of the relationship between patient and physician which distinguishes in a wholly unique way the healer and his client from any member of any profession and those to whom his services are rendered. It has existed since there was a healer and a healed, and will exist, unique, precious, to the vast majority of physicians, sacred.

Modern medicine may be the creature of the last eighty years, but this is immemorial and must persist. Here at least, "since things were made," there has been no alteration.

THE "WHY" OF SOME THINGS

It seems that quite a fashionable topic for discussion in the medical journals of late is the relation of the Health Departments to the medical profession.

Much of this discussion appears to have entirely overlooked the fact that those who comprise the Health Boards or Health Departments, who direct their policies, or outline their duties are themselves members of the medical profession, imbued with its ideals, acquainted with its problems, and bound up to its fortunes, whether of weal or woe, with the closest of affiliations. Preventive medicine is a part of the body of medicine, as integral a part of it, in fact, as an arm or a leg is a part of the human anatomy. The discussion, therefore, should be carried on with this intimate connection in mind.

There are Health Departments which are atrophied from disuse, as there are organs so affected in the human subject. The restoration of these to their normal functioning cannot be carried out until the whole body has been placed under treatment. There may be Health Departments which are hypertrophied, a somewhat natural hypertrophy, in that this is nature's normal method of correcting a defect. The hypertrophied Health Department, the one which, being but an arm attempts to usurp the functions of a leg, will be found to be that Department which functions where the profession, so to speak, lacks locomotive powers, where there has not been that natural and normal development of all the complex and complicated adjuncts which go to the formation of a perfectly functioning organism. Here, too, there is need not only for local treatment, but for treatment of the body as a whole.

The majority of the Health Boards or Health Departments approach their task, which is the protection of the public, in exactly the same way as does any member of that profession whose fixed determination to do all that is humanly possible for their patients is axiomatic and proverbial. It finds many avenues of effort untrodden, many fields untilled. At the risk of incurring the displeasure of individual members of the profession, it often finds itself forced to tread these paths or till these fields. From each and every one of them it would gladly retire if it could do so, confident that the need for its effort did not exist. It would undertake or conduct no clinics for the immunization of children against diphtheria, if the organized medical profession would see that the work was done. It would conduct no child health clinics or prenatal clinics if the medical societies would give the public these services. And, if every medical practitioner gave the attention to preventive medicine which he is accustomed to give to curative medicine, much of the need for a health department would disappear.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely *free* to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve *you*.

THE JOURNAL herewith presents its first State Board of Health Number, and we have no hesitancy in saying it is one of the best we have yet issued. The Department, with courtesy and promptness, accepted the editor's suggestion that they prepare articles and editorials for one full issue, and those of you who have read this number from the beginning to this page have already learned what excellent material our Dover confreres have contributed. With the success of this issue thus assured, we hope to make the State Board of Health Number an annual feature for August.

Dr. Smith's paper on endemic typhus fever is quite timely. Last month we pointed out in the Miscellaneous Section that the disease had become a major issue in Maryland, but at the time of going to press no case of typhus fever had been reported in Delaware. This issue, however, gives a synopsis of the first case in this State, which was found in Sussex County.

By the way, Sussex County can produce other rarities besides typhus fever. It produced, we believe, the first case of undulant fever in Delaware, and probably the first case of sporotrichosis. Furthermore, in addition to these items that may perturb the medico, it has no small reputation for producing many things to regale and refresh him, including ocean breezes and "mountain dew," to say nothing of a choice crop of dentifrices, and a congenial assortment of politicians. Keep your eye on Sussex!

Our esteemed exchange, the MARYLAND PHARMACIST, in its July issue prints in full the extemporaneous address delivered by the editor of the JOURNAL before the Maryland Pharmaceutical Association at their meeting at Salisbury. Our thanks to Editor Swain for devoting over five pages of his valuable space to our remarks. We hope they receive as favorable a reception in print as they did in person at their convention. The subject was "The Pharmacy as an Outpost of Legislation."

Studies of Asthma

Abraham Colmes and Francis M. Rackemann, Boston (*Journal A. M. A.*, July 19, 1930), report three patients who illustrate several important features of allergy. First, they demonstrate the clinical importance of noting the criteria of allergy. It was the finding of a positive family history of allergy which led later to the finding of positive skin tests and to the relief of symptoms when the corresponding allergens were eliminated. The occurrence of wheezing (asthma) in all the cases as a later manifestation may be regarded as confirmation of the allergic background. Second, the onset during the acute respiratory infection needs comment. In many instances, an existing hypersensitiveness manifests itself only in the course of an acute infection, so that contact with the dog, for example, during a "cold" results in asthma, while the same contact in the absence of a cold fails to produce symptoms. The infection can evidently lower the threshold in some way to make a slight exposure adequate to cause trouble. Third, allergic cough (without the presence of wheezing or rales in the chest) has not been emphasized in the literature. Fourth, the variations in the clinical manifestations of disease in the three cases are easily explained by the assumption that they represent different degrees or stages in the amount of secondary bronchial infection. The first case represents the simple "uninfected" type. In the second, chronic bronchitis and emphysema complicate the picture. The third case illustrates well the possibility that hypersensitiveness to various dusts may be a seriously complicating factor in pulmonary disease of any kind. Fifth, when hypersensitiveness forms the background in pulmonary or nasal disease, the recognition and elimination of the offending allergen may be followed by marked amelioration of the disease, even in its advanced stage.

DELAWARE PHARMACEUTICAL SOCIETY

EDUCATE CONGRESSMEN

When the executive officers and counsel for the N. A. R. D. canvassed the members of the house during the last session of Congress in behalf of the Capper-Kelly Fair Trade bill they were surprised to find so many that apparently did not understand the meaning and effect of the bill. Not infrequently members were met who misunderstood what the bill was designed to accomplish and its effect on the consuming public. The opposition had not been idle, or asleep. Members of Congress evidently had been supplied with all sorts of misrepresentations concerning the Capper-Kelly bill. They had been informed that it was dangerous to the public because it sanctioned price-fixing. This was the contention presented in full-page display advertisements in daily newspapers by certain chain drug stores when the Capper-Kelly bill was the subject of a hearing before the house interstate and foreign commerce committee in April, 1926, and on other occasions. This of course was calculated to and undoubtedly did have the effect of prejudicing certain members of Congress against the bill. The average congressman necessarily must consult the interests of his constituents, who nominate and elect him. These constituents are the consumers. What could be more effective than notice by advertising to the public in daily newspapers that the seekers of "bargains" would be denied them if the Capper-Kelly bill became a law? Supplementing this misinformation came the representation that chain and department stores and mail-order houses could undersell independent merchants because of their ability to buy in large quantities and obtain quantity discounts, which the smaller independent merchant could not do. It was further represented to mislead the public into believing that chain and department stores and mail-order houses were saving them money that they were better organized and managed, that they were conducted more economically and efficiently, that they were made more attractive, etc. Propaganda was also spread to the effect that "the chain stores have come to stay" and "the days of the independent merchant are numbered" and he might as well become reconciled to his fate and accept a salaried position or nothing at all. Propaganda of this character was persistently showered upon members of Congress by the op-

position of the Capper-Kelly bill. What was done by the advocates of the bill to offset this in influencing members of Congress? Letters and telegrams galore were sent, principally by retail druggists and their organizations. Resolutions were adopted and forwarded, in the main by organizations of retail druggists. It is true that excellent work was also done by organizations representing other interests, such as retail grocers, retail jewelers, retail hardware merchants and the American Fair Trade Association. That good work and plenty of it was done can not be denied, but it is clear that much more work needs to be done. If many members of the lower branch of Congress still require enlightenment as to the meaning and effect of the Capper-Kelly bill, after all of the propaganda that has been supplied during the past sixteen years, or more, it is reasonable to expect that many members of the United States Senate require education on the Capper-Kelly bill. About a year ago one of the Republican leaders of the Senate publicly told a state convention of retail druggists that he was opposed to the Capper-Kelly bill because the country wanted no more bureaus. The Capper-Kelly bill, of course, does not mention a bureau, or make provision for a bureau, directly or indirectly, and if made a law would do no more than afford an opportunity for any citizen who suffered a breach of contract to appeal to the courts. This distinguished Republican senator, however, had not even read the Capper-Kelly bill. How many other senators are in the same position? Members of both the House and Senate have to be enlightened as to the meaning and effect of the Capper-Kelly bill. This is the job of independent retail druggists and all other independent retailers, wholesalers and manufacturers. No better opportunity for doing this work may be found than in the congressional campaign this summer and fall. This is the time to make an impression on candidates for the House and Senate—*N. A. R. D. Jour.*

Latent Gas Bacillus Infection Complicating Gangrene of Lower Extremity

Robert R. Linton, Boston (*Journal A. M. A.*, July 19, 1930), reports six cases and concludes that gas bacillus infection may develop in any case of gangrene of the lower extremity resulting from impaired circulation, regardless of the age of the patient or whether the gangrene is moist or dry or the skin is intact or broken. Conservative treatment, including delay for the appearance of a definite line of demarcation, if carried too far in these cases is dangerous, because of possible gas bacillus infection in the gangrenous extremity. Roentgenograms of the affected limb may show gas deep in the muscle planes that cannot be detected by palpation. In any suspected case of gas bacillus infection, immediate amputation is imperative. In such cases, unless there is evidence of good circulation below the knee, it is much safer to amputate through the thigh. In cases with a definite gas bacillus infection in the lower leg, either before or after a primary amputation, the operation of choice is a guillotine amputation through the lower third of the thigh, with no attempt at closure of the stump.

Telescopic Vision and Medical Economics

Ernest E. Irons, Chicago (*Journal A. M. A.*, July 26, 1930), discusses in detail the personal relationship of the physician to the patient; the cost of medical care, hospital care and of laboratory methods and specialists; group clinics; clinics for venereal disease; medical care in rural communities; the passing of the family doctor, and governmental philanthropy and state medicine. He concludes by saying that medicine offers to the public more today than ever before, and promises still more for the future. Its guiding genius is that of personal service, given in a spirit of helpfulness and sympathy. The physician is an individualist who believes in co-operation. In opposing measures which threaten the voluntary confidential relation of patient to physician, he is actuated not by selfish motives but by the knowledge that such measures will result in deterioration rather than improvement of the quality of medical care of those whose lot they are designed to benefit. In attempting to deal with the purely medical phases of these problems, the danger to medical organization is not that it may fail to voice medical opinion but that it may adopt methods of action of a trade rather than of a profession.

MISCELLANEOUS

On the Cost of Medical Care

At the spring meeting of the Committee on the Cost of Medical Care in Washington May 2 and 3, 1930, a special committee of private practitioners was appointed to consider the relation of the committee to the private practitioners of the country. This committee, composed of the undersigned members, now submits the following statement for the information of these practitioners on the scope and aim of the committee's work.

It was clearly recognized by all present at the spring meeting that the committee has undertaken a program of studies which in its scope goes far beyond that part of the cost of medical care which physicians provide. The expense of several other kinds of service now looms large in the total cost of many illnesses. In addition, special emphasis was given at the meeting to the question of the adequacy of the various services available in a community. Finally, the committee adopted a statement of three fundamental principles proposed by the Chairman, which should go a long way toward reassuring those who have been apprehensive regarding the nature of the committee's ultimate recommendations.

I.

The committee is interested in far more than the physician's bill, which, in many instances, is considerably less than half the total cost of illness. Hospital care, nursing, dentistry, laboratory examinations, and medicines often involve considerable expense, as is clearly shown by several of the committee's studies which are now being completed or have already been reported upon. In one middle-western county recently surveyed, the expenditures for various kinds of medicines constituted over one-third of the total expense for medical care, and were 20 per cent greater than the costs of physicians' services. It is also becoming apparent that a great deal of money is being spent for useless medicines and for various irregular forms of treatment which do the patient no good or which may result in positive harm.

In order to indicate clearly the broad scope of the committee's work, it was decided at the spring meeting to make a slight change in its name. The word "cost" is to be changed to "costs." The complete name of the committee, with sub-title, will henceforth be "The Committee on the Costs of Medical Care—Organized to Study the Economic Aspects of the Prevention and the Care of Sickness, including the Adequacy, Availability and Compensation of the Persons and Agencies Concerned."

One vital problem before this committee, declared a prominent physician member, at the recent meeting, is the determination of what is reasonably adequate care. In many cases of obscure disorders and serious illness, expensive facilities are essential. Presumably, there must be available in the community well trained general practitioners, certain specialists, dentists, nurses, hospitals and health agencies,—trained and well equipped to do their part in providing all the care that the individual may need. A plan of the executive committee, to conduct a study to determine standards of adequate medical care, under the general direction of some well-known competent physician and with the assistance of a committee of fifteen or twenty other physicians, was heartily endorsed at the meeting of the general committee.

The aim of the committee is to study the problem described by Dr. Olin West, the Secretary of the American Medical Association, as the one great outstanding problem before the medical profession today. This, he says, is that involved in "the delivery of adequate, scientific medical care to all people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life." The committee is endeavoring to establish a foundation of facts which have an important bearing upon this problem. On the basis of these facts, it will propose recommendations for the provision of adequate and efficient therapeutic and preventive service for all the people at a reasonable cost to the individual, which, at the same time, will provide physicians, dentists, nurses, hospitals and other agents assurance of adequate return. This is not a new statement of aim. Recent discussion, however, has given new emphasis to certain aspects of it. There are important items in the cost of sickness other than the physician's bill; and the adequacy of the service provided must be considered. The program of studies is a comprehensive one. It deals with questions of supply, demand, distribution and costs of all kinds of services, both preventive and curative; the relation of these costs to other expense; the return accruing to the practitioners and various agents furnishing medical services; and especially will it seek to determine what standards of adequacy may reasonably be expected.

II.

Dr. Ray Lyman Wilbur, Chairman of the committee, proposed at the meeting May 2nd a statement of three fundamental principles for the consideration of the committee. This statement was referred to each of four sub-committees which held sessions during the two-day meeting. The entire committee, at its last session, May 3rd, adopted with a few verbal changes the three principles. These will be of special interest to the physicians and dentists. They follow:

1. **The personal relation between physician and patient must be preserved in any effective system of medical service.**

Medical service is and doubtless, by its very nature, must remain a distinctly personal service. Even in this age of standardized commodities for the table, ready-to-wear clothing, and interchangeable spare parts for all types of machines, there has been no plan suggested for the reduction of medical diagnosis and treatment to basic units which can be ordered from travelling salesmen or acquired through correspondence courses. The physician must see his patient and see him, in many cases, over an extended period of time if the diagnosis and treatment are to achieve the greatest possible accuracy and efficiency. There is no substitute for personal observation.

Man is not a standardized machine and each individual reacts to the conditions of life in a manner in some respects unique. In the treatment of disease, this individual variation is a factor of great significance and can receive due consideration only when the practitioner has known the patient for a considerable time and maintains a personal relation with the patient.

2. **The concept of medical service of the community should include a systematic and intensive use of preventive measures in private practice and effective support of preventive measures in public health work.**

The cost of adequate curative treatment is now high and may continue to increase as expensive procedures resulting from scientific progress become more widely used. Sickness, in addition, involves other personal and social costs, some of which cannot be measured in monetary terms.

The outstanding achievements in scientific medicine have been made in the preventive rather than the curative field. Knowledge now available for the control of malaria, tuberculosis, smallpox, diphtheria, pellagra, typhoid fever, hookworm disease, and goiter, if effectively applied, would make unnecessary a considerable portion of the present expense for the cure of sickness.

3. **The medical service of a community should include the necessary facilities for adequate diagnosis and treatment.**

From the standpoint of effective diagnosis, many diseases, such as tuberculosis, cannot be recognized promptly in their early stages without the aid of elaborate technical equipment. From the standpoint of adequate therapy, if the best of modern technique is not immediately available, complete cures are either delayed or rendered impossible of attainment. To cite a specific illustration of the improvement of modern therapeutic procedures over those of ten years ago, the time required for treatment of fractures of the hip, and the percentage of permanent invalidity resulting from that injury have each been reduced by more than half.

We cannot be content with anything except the best possible service that modern science can provide and it is therefore imperative that modern scientific equipment for the diagnosis and treatment of disease be available to the practitioners of medicine in every community.

Special Committee of Private Practitioners

STEWART R. ROBERTS, M. D., *Chairman*

WALTER P. BOWERS, M. D.
A. C. CHRISTIE, M. D.
HAVEN EMERSON, M. D.
GEORGE E. FOLLANSBEE, M. D.
M. L. HARRIS, M. D.
J. SHELTON HORSLEY, M. D.
KIRBY S. HOWLETT, M. D.
ARTHUR C. MORGAN, M. D.
HERBERT E. PHILLIPS, D. D. S.
C. E. RUDOLPH, D. D. S.
RICHARD M. SMITH, M. D.
N. B. VAN ETTEN, M. D.

GARVAN CANCER RESEARCH LABORATORY

JOHNS HOPKINS HOSPITAL
BALTIMORE, MARYLAND

TO MY COLLEAGUES, THE EDITORS OF THE MEDICAL JOURNALS OF THE UNITED STATES AND CANADA:

If you receive this in time and it is appropriate, will you publish in your journal that there will be a meeting in the ballroom of Belvedere Hotel in Baltimore, Maryland, Monday, Tuesday and Wednesday, September 15, 16 and 17, 1930, beginning Monday morning at ten o'clock and ending Wednesday evening at nine o'clock, daylight saving time. During these days there will be lantern-slide demonstrations, with four lanterns and screens, on the Diagnosis and Treatment of Diseases and Tumors of Bone.

The first day will be devoted to the fundamental and essential knowledge of the benign and malignant lesions of bone, such as osteitis fibrosa, giant-cell tumors, osteomyelitis, sarcoma and so forth. On the second day, the subject will be the different diseases of single bones, such as the lower end of the radius, vertebrae, etc. The third day will be reserved for the presentation of rare lesions of bone difficult to diagnose. Any member of the medical profession attending this meeting may register such a case by addressing Miss Maude Walker, Secretary to Dr. Bloodgood, Surgical Pathological Laboratory, Johns Hopkins Hospital, Baltimore, Md., enclosing the xray films or lantern slides of them (if possible the latter) and sections of tissue, if any. Any member of the medical profession interested in the diagnosis and treatment of lesions of bone is invited.

On account of the size of the ballroom the number must be limited to 800.

Those who wish to attend should write the Belvedere Hotel and register, either requesting the

usual rates for a single or double room with or without bath, or the special rates for three or more in a room with and without bath, and the special restaurant rates for a club breakfast, luncheon and dinner. You are advised to bring the answer received from the Manager of the Belvedere Hotel with you and present it when you register. For any further details in regard to this demonstration, address your letter to Miss Maude Walker, named above.

I am very anxious that this invitation should reach radiologists, surgeons, pathologists, and internists who are interested in the subject but have only rare opportunities to observe lesions of bone. In three sessions of two or two and one-half hours each, on three days, with four lanterns and a very remarkable and educational motion picture, the subject can be presented in an almost unforgetable way, emphasizing the essentials and fundamentals in the diagnosis and treatment of bone lesions. All cases registered for presentation on Wednesday, will be sent later to Dr. Bowman C. Crowell, Director of Clinical Research of the American College of Surgeons, who is Chairman of the Bone Sarcoma Committee. You should become familiar with this registration of sarcoma of bone, if you are not, because you can register all your cases there and receive the diagnosis of a committee, and you can send for groups of bone tumor cases which have been registered, for personal study.

It is impossible except in the largest clinics, for any radiologist, pathologist, surgeon, or internist, to become familiar with the changing clinical, xray and microscopic pictures of diseases and tumors of bone as they come under observation earlier and earlier after the first injury or first symptom, and to learn how to diagnose and treat them in the best way.

Sincerely yours,

JOSEPH C. BLOODGOOD.

Solitary Cyst of Kidney

Solitary cyst of the kidney was found by Herman L. Kretchmer, Chicago (*Journal A. M. A.*, July 19, 1930), in a series of five cases. He says: "This condition is probably not as rare as is generally thought by clinicians, especially urologists. A good roentgenogram ought to show the outline of the cyst in the majority of cases. In cases in which the cyst springs from the lower pole, its recognition from the roentgenogram should be relatively easy. Cysts in the upper pole are not so easily recognized in plain films, and when large they result in changes in the renal outline. The pyelograms may vary, depending on the size of the cyst, its origin and the direction of growth. In this series, one pyelogram was normal and two were definitely abnormal."

BOOK REVIEW

Medical and Surgical Year-Book. (Physicians' Hospital of Plattsburgh.) By various authors. Pp. 322, with 72 illustrations. Cloth. Price $3.50. Plattsburgh (N. Y.): William H. Miner Foundation, 1930.

This is the first report of the first summer school conducted by the Foundation for third-year medical students. The course was concerned primarily with cardio-nephritis and arterial hypertension, and lasted seven weeks. The book, however, covers a wide range of topics, and the papers are well above the average. Steiner's paper on Beaumont, the pioneer physiologist, is unusually fine. The illustrations are exceptionally well done, and the index is complete. The book is well worth while.

CHIROPRACTORS

don't cut out the organ,

they remove the cause of the disease. If it wasn't intended for us to have all our organs, we wouldn't have been given them. The fact is we need every piece of human machinery we possess—to keep them working properly, that is the problem at times. Cutting them out may sometimes relieve the condition for the time, but haven't we "paid too much for our whistle?" To lose a valuable organ when the mechanism of the body could have been set to working normally by a few Chiropractic Adjustments is next to criminal. Why not employ the common sense method of removing the disease instead of removing the organ?

DR. WILLIAM H. MOYER

Chiropractor

103 Cross Street **Chestertown, Md.**

Phone 176

Office Hours: Tuesdays, Thursdays, Saturdays,
10 a. m. to 8 p. m.
Other Hours by Appointment

—*Chestertown Enterprise.*

Urethral Ectopic Ureter From Hydronephrotic Half of Double Kidney

Urethral ectopic ureters without incontinence of urine are exceedingly rare. As a source of pyuria and bacteriuria, such ureters may present difficult diagnostic problems. The persistence of pus and bacteria in the urine without an assignable cause should lead to a careful search for an ectopic ureter. The case presented by Edgar G. Ballenger, Omar F. Elder and Harold P. McDonald, Atlanta, Ga. (*Journal A. M. A.*, July 26, 1930), probably the first to be reported in a male, is illustrative of this condition.

MEDICAL SOCIETY OF DELAWARE

OFFICERS AND COMMITTEES FOR 1930

PRESIDENT: I. J. MacCollum, Wyoming

FIRST VICE-PRESIDENT: John H. Mullin, Medical Arts Bldg., Wilmington — SECOND VICE-PRESIDENT: Oliver V. James, Milford

SECRETARY: W. O. LaMotte, Medical Arts Bldg., Wilmington — TREASURER: S. C. Rumford, 1403 Market St., Wilmington

COUNCILORS

U. W. Hocker, Lewes — Geo. C. McElfatrick, Wilmington — Joseph Bringhurst, Felton

DELEGATES

To American Medical Association, Dr. G. W. K. Forrest, Wilmington — Alternate, Wm. Wertenbaker, Wilmington
To Maryland State Medical Society — James Beebe, Lewes
To Pennsylvania State Medical Society — D. T. Davidson, Claymont
To New Jersey State Medical Society — C. J. Prickett, Smyrna
To New York State Medical Society — P. W. Tomlinson, Wilmington
To Delaware Pharmaceutical Society — H. M. Manning, Seaford; Edgar Q. Bullock, Wilmington; W. C. Deakyne, Smyrna

COMMITTEE ON SCIENTIFIC WORK

W. O. Lamotte, Wilmington — Richard Beebe, Lewes — H. V. P. Wilson, Dover

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

L. S. Conwell, Camden — Samuel Marshall, Milford — Victor D. Washburn, Wilmington

COMMITTEE ON MEDICAL EDUCATION

Harold Springer, Wilmington — I. Lewis Chipman, Wilmington — E. S. Dwight, Smyrna

COMMITTEE ON CANCER

Harold Springer, Wilmington — Geo. F. Jones, Georgetown — W. J. Marshall, Milford
H. V. P. Wilson, Dover — James Beebe, Lewes — W. E. Bird, Wilmington
W. O. LaMotte, Wilmington — Geo. C. McElfatrick, Wilmington — M. A. Tarumianz, Farnhurst

COMMITTEE ON HEALTH PROBLEMS IN EDUCATION

W. P. Orr, Lewes — C. A. Sargent, Dover — E. S. Smith, Georgetown
F. F. Armstrong, Wilmington — Willard R. Pierce, Milford

COMMITTEE ON NECROLOGY

Willard Springer, Wilmington — P. W. Tomlinson, Wilmington — J. B. Derrickson, Frederica

COMMITTEE ON PUBLICATIONS

W. E. Bird, Wilmington — M. A. Tarumianz, Farnhurst — W. O. LaMotte, Wilmington

COMMITTEE ON HOSPITALS

O. V. James, Milford — H. V. P. Wilson, Dover — W. H. Speer, Wilmington

Delegates to the U. S. Pharmacopoeial Convention

W. F. Haines, Seaford — Joseph McDaniel, Dover — Willard E. Smith, Wilmington
Alternates: H. M. Manning, Seaford — C. G. Harmonson, Smyrna — Geo. Vaughan, Wilmington

---

NEW CASTLE COUNTY MEDICAL SOCIETY—1930

Meets the Third Tuesday

DR. ROBERT W. TOMLINSON, *President*, Wilmington.
DR. LEWIS BOOKER, *Vice-President*, New Castle.
DR. DOUGLAS T. DAVIDSON, *Secretary*, Claymont.
DR. LOUIS S. PARSONS, *Treasurer*, Wilmington.

Delegates: J. W. Bastian, W. Edwin Bird, Lewis Booker, I. L. Chipman, G. W. K. Forrest, Dorsey W. Lewis, George C. McElfatrick, John Palmer, Jr., Louis S. Parsons, Harold L. Springer P. W. Tomlinson, Joseph P. Wales. Alternates: Olin S. Allen Douglas T. Davidson, T. H. Davies, Lawrence J. Jones, William V. Marshall, Meredith I. Samuel, Brice S. Vallett, George W. Vaughan, William Wertenbaker.

Board of Directors: Robert W. Tomlinson, D. T. Davidson, M. A. Tarumianz, L. Heisler Ball, Ira Burns.

Board of Censors: G. Burton Pearson, J. M. Barsky, James W. Butler.

Program Committee: Lewis Booker, Robert W. Tomlinson, D. T. Davidson.

Legislation Committee: G. W. K. Forrest, J. D. Niles, V. D. Washburn.

Membership Committee: George W. Vaughan, L. J. Jones, G. C. McElfatrick.

Necrology Committee: E. R. Mayerberg, Olin S. Allen, A. L. Heck.

Nomination Committee: Paul R. Smith, James G. Spackman, William Wertenbaker.

Audits Committee: B. M. Allen, J. A. Shapiro, Willard E. Smith.

Radio Committee: A. J. Strikol, Seth H. Hurdle, J. D. Niles, George W. Vaughan, V. D. Washburn

KENT COUNTY MEDICAL SOCIETY— 1930

Meets the First Wednesday

DR. C. A. SARGENT, *President*, Dover.
DR. OGBURN, *Vice-President*, Dover.
DR. C. B. SCULL, JR., *Secretary-Treasurer*, Dover.

Censors: Dr. W. C. Deakyne of Smyrna, 1930; Dr. J. W. Martin of Magnolia, 1931; Dr. S. M. D. Marshall of Milford, 1932.

Delegates: Dr. L. S. Conwell of Camden, 1930; Dr. J. S. McDaniel of Dover. 1931; Dr. Joseph Bringhurst of Felton, 1932. Alternate: Dr. Willard R. Pierce of Milford.

SUSSEX COUNTY MEDICAL SOCIETY—1930

Meets the Second Thursday

W. F. HAINES, *President*, Seaford.
K. J. HOCKER, *Vice President*, Millville.
E. L. SMITH, *Secretary-Treasurer*, Georgetown.

Committee on Entertainment: Bruce Barnes, G Frank Jones, U. W. Hocker.

Visiting Committee: W. F. Haines, Robert Hopkins, K. J. Hocker.

Committee on Nominations: U. W. Hocker, O. V. James, H. M. Manning.

DELAWARE STATE BOARD OF HEALTH—1930

W. P. Orr, M. D., President, Lewes; Mrs. Charles Warner, Vice-President, Wilmington; Robert Ellgood, M. D., State Road; Willard R. Pierce, M. D., Milford; Mrs. Donald S. Ashbrook, Wilmington; Margaret Handy, M. D., Wilmington; C. R. Jeffries, D. D. S., Wilmington; Arthur C. Jost, M. D., Dover; Executive Secretary and Registrar of Vital Statistics.

DIVISIONS

Child Hygiene, Clealand A. Sargent, M. D.; Sanitation, Richard C. Beckett, B. Sc.; Laboratory, Roland D. Herdman, B. Sc.; Brandywine Sanitarium, Lawrence D. Phillips, M. D. and Edgewood Sanitarium, Conwell Banton, M. D.

DELAWARE PHARMACEUTICAL SOCIETY—1930

WALTER R. KEYS, *President*, Clayton.
JAMES T. CHALLENGER, New Castle, HEWITT K. MCDANIEL, Dover, GEORGE E. SWAIN, Georgetown, *Vice Presidents*.
ALBERT DOUGHERTY, *Secretary*, Wilmington.
PETER F. BIENKOWSKI, *Treasurer*, Wilmington.

Board of Directors: Walter R. Keys, James W. Wise, George W. Rhodes, Albert S. Williams, Walter L. Morgan.

WOMAN'S AUXILIARY, M. S. OF D.—1930

MRS. ROBERT W. TOMLINSON, *President*, Wilmington, Delaware.
MRS. JOSEPH MCDANIEL, *Vice-President for Kent County*, Dover, Delaware.
MRS. WILLIAM P. ORR, *Vice-President for Sussex County*, Lewes, Delaware.
MRS. M. A. TARUMIANZ, *Treasurer*, Farnhurst, Delaware.
MRS. LAWRENCE JONES, *Secretary*, Wilmington, Delaware.

MEDICAL SOCIETY OF DELAWARE

OFFICERS AND COMMITTEES FOR 1930

PRESIDENT: I. J. MacCollum, Wyoming

FIRST VICE-PRESIDENT: John H. Mullin, Medical Arts Bldg., Wilmington — SECOND VICE-PRESIDENT: Oliver V. James, Milford

SECRETARY: W. O. LaMotte, Medical Arts Bldg., Wilmington — TREASURER: S. C. Rumford, 1403 Market St., Wilmington

COUNCILORS

U. W. Hocker, Lewes — Geo. C. McElfatrick, Wilmington — Joseph Bringhurst, Felton

DELEGATES

To American Medical Association, Dr. G. W. K. Forrest, Wilmington — Alternate, Wm. Wertenbaker, Wilmington
To Maryland State Medical Society — James Beebe, Lewes
To Pennsylvania State Medical Society — D. T. Davidson, Claymont
To New Jersey State Medical Society — C. J. Prickett, Smyrna
To New York State Medical Society — P. W. Tomlinson, Wilmington
To Delaware Pharmaceutical Society — H. M. Manning, Seaford; Edgar Q. Bullock, Wilmington; W. C. Deakyne, Smyrna

COMMITTEE ON SCIENTIFIC WORK

W. O. Lamotte, Wilmington — Richard Beebe, Lewes — H. V. P. Wilson, Dover

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

L. S. Conwell, Camden — Samuel Marshall, Milford — Victor D. Washburn, Wilmington

COMMITTEE ON MEDICAL EDUCATION

Harold Springer, Wilmington — I. Lewis Chipman, Wilmington — E. S. Dwight, Smyrna

COMMITTEE ON CANCER

Harold Springer, Wilmington — Geo. F. Jones, Georgetown — W. J. Marshall, Milford
H. V. P. Wilson, Dover — James Beebe, Lewes — W. E. Bird, Wilmington
W. O. LaMotte, Wilmington — Geo. C. McElfatrick, Wilmington — M. A. Tarumianz, Farnhurst

COMMITTEE ON HEALTH PROBLEMS IN EDUCATION

W. P. Orr, Lewes — C. A. Sargent, Dover — E. S. Smith, Georgetown
F. F. Armstrong, Wilmington — Willard R. Pierce, Milford

COMMITTEE ON NECROLOGY

Willard Springer, Wilmington — P. W. Tomlinson, Wilmington — J. B. Derrickson, Frederica

COMMITTEE ON PUBLICATIONS

W. E. Bird, Wilmington — M. A. Tarumianz, Farnhurst — W. O. LaMotte, Wilmington

COMMITTEE ON HOSPITALS

O. V. James, Milford — H. V. P. Wilson, Dover — W. H. Speer, Wilmington

Delegates to the U. S. Pharmacopoeial Convention

W. F. Haines, Seaford — Joseph McDaniel, Dover — Willard E. Smith, Wilmington
Alternates: H. M. Manning, Seaford — C. G. Harmonson, Smyrna — Geo. Vaughan, Wilmington

---

NEW CASTLE COUNTY MEDICAL SOCIETY—1930

Meets the Third Tuesday

DR. ROBERT W. TOMLINSON, *President*, Wilmington.
DR. LEWIS BOOKER, *Vice-President*, New Castle.
DR. DOUGLAS T. DAVIDSON, *Secretary*, Claymont.
DR. LOUIS S. PARSONS, *Treasurer*, Wilmington.

Delegates: J. W. Bastian, W. Edwin Bird, Lewis Booker, I. L. Chipman, G. W. K. Forrest, Dorsey W. Lewis, George C. McElfatrick, John Palmer, Jr., Louis S. Parsons, Harold L. Springer P. W. Tomlinson, Joseph P. Wales. Alternates: Olin S. Allen Douglas T. Davidson, T. H. Davies, Lawrence J. Jones, William V. Marshall, Meredith I. Samuel, Brice S. Vallett, George W. Vaughan, William Wertenbaker.

Board of Directors: Robert W. Tomlinson, D. T. Davidson, M. A. Tarumianz, L. Heisler Ball, Ira Burns.

Board of Censors: G. Burton Pearson, J. M. Barsky, James W. Butler.

Program Committee: Lewis Booker, Robert W. Tomlinson, D. T. Davidson.

Legislation Committee: G. W. K. Forrest, J. D. Niles, V. D. Washburn.

Membership Committee: George W. Vaughan, L. J. Jones, G. C. McElfatrick.

Necrology Committee: E. R. Mayerberg, Olin S. Allen, A. L. Heck.

Nomination Committee: Paul R. Smith, James G. Spackman, William Wertenbaker.

Audits Committee: B. M. Allen, J. A. Shapiro, Willard E. Smith.

Radio Committee: A. J. Strikol, Seth H. Hurdle, J. D. Niles, George W. Vaughan, V. D. Washburn

KENT COUNTY MEDICAL SOCIETY— 1930

Meets the First Wednesday

DR. C. A. SARGENT, *President*, Dover.
DR. OGBURN, *Vice-President*, Dover.
DR. C. B. SCULL, JR., *Secretary-Treasurer*, Dover.

Censors: Dr. W. C. Deakyne of Smyrna, 1930; Dr. J. W. Martin of Magnolia, 1931; Dr. S. M. D. Marshall of Milford, 1932.

Delegates: Dr. L. S. Conwell of Camden, 1930; Dr. J. S. McDaniel of Dover. 1931; Dr. Joseph Bringhurst of Felton, 1932. Alternate: Dr. Willard R. Pierce of Milford.

SUSSEX COUNTY MEDICAL SOCIETY—1930

Meets the Second Thursday

W. F. HAINES, *President*, Seaford.
K. J. HOCKER, *Vice President*, Millville.
E. L. SMITH, *Secretary-Treasurer*, Georgetown.

Committee on Entertainment: Bruce Barnes, G Frank Jones, U. W. Hocker.

Visiting Committee: W. F. Haines, Robert Hopkins, K. J. Hocker.

Committee on Nominations: U. W. Hocker, O. V. James, H. M. Manning.

DELAWARE STATE BOARD OF HEALTH—1930

W. P. Orr, M. D., President, Lewes; Mrs. Charles Warner, Vice-President, Wilmington; Robert Ellgood, M. D., State Road; Willard R. Pierce, M. D., Milford; Mrs. Donald S. Ashbrook, Wilmington; Margaret Handy, M. D., Wilmington; C. R. Jeffries, D. D. S., Wilmington; Arthur C. Jost, M. D., Dover; Executive Secretary and Registrar of Vital Statistics.

DIVISIONS

Child Hygiene, Clealand A. Sargent, M. D.; Sanitation, Richard C. Beckett, B. Sc.; Laboratory, Roland D. Herdman, B. Sc.; Brandywine Sanitarium, Lawrence D. Phillips, M. D. and Edgewood Sanitarium, Conwell Banton, M. D.

DELAWARE PHARMACEUTICAL SOCIETY—1930

WALTER R. KEYS, *President*, Clayton.
JAMES T. CHALLENGER, New Castle, HEWITT K. MCDANIEL, Dover, GEORGE E. SWAIN, Georgetown, *Vice Presidents*.
ALBERT DOUGHERTY, *Secretary*, Wilmington.
PETER F. BIENKOWSKI, *Treasurer*, Wilmington.

Board of Directors: Walter R. Keys, James W. Wise, George W. Rhodes, Albert S. Williams, Walter L. Morgan.

WOMAN'S AUXILIARY, M. S. OF D.—1930

MRS. ROBERT W. TOMLINSON, *President*, Wilmington, Delaware.
MRS. JOSEPH MCDANIEL, *Vice-President for Kent County*, Dover, Delaware.
MRS. WILLIAM P. ORR, *Vice-President for Sussex County*, Lewes, Delaware.
MRS. M. A. TARUMIANZ, *Treasurer*, Farnhurst, Delaware.
MRS. LAWRENCE JONES, *Secretary*, Wilmington, Delaware.

ISAAC JAMES MacCOLLUM, M.D.
PRESIDENT *of the* MEDICAL SOCIETY *of* DELAWARE
1930